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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/538,267

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Takehiko Kawasaki

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EXAMINER

JOERGER, KAITLIN S

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,267	Applicant(s) KAWASAKI ET AL.	
	Examiner KAITLIN S. JOERGER	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 11/16/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 10, 11, and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomita et al. (U.S. Patent 5,852,499).

Regarding claim 1, Tomita et al. teaches a sheet material information-detecting apparatus comprising:

- a sheet feeding means, 6, for feeding the sheet material;
- a correcting means, 11, for correcting the position of the feed sheet material to bring the orientation direction of the constituting material of the sheet material to be in a prescribed direction relative to the feed direction of the sheet material;
- an external force applying means for applying an external force to the sheet material in the corrected position, wherein the applied external force is a mechanical force;
- a signal detecting means for detecting signal from the sheet material; and
- an information-acquiring means for acquiring information on the stress caused by the applied external force in the sheet material, see column 8, lines 58 through column 10, lines 50.

Regarding claim 2, Tomita et al. further teaches a sheet material sensor for sensing interaction of the external force applying means and signal detecting means with the sheet material, 10.

Regarding claim 3, Tomita et al. teaches that the sensor detects the state or position of the sheet material, see column 8, lines 58+.

Regarding claim 4, Tomita et al. further teaches that the sheet information acquiring means acquires information by comparison of the result of the detection by the signal detecting means with data, see column 7, lines 40+.

Regarding claim 5, Tomita et al. teaches that the sheet acquiring means acquires information by comparison of the result of the detection by the signal detecting means with data for directions of the sheet material, see column 7, lines 40+.

Regarding claim 10, Tomita et al. teaches that the external force is a wave, see column 5, lines 43+.

Regarding claim 11, Tomita et al. teaches that the external force is an optical wave, see column 5, lines 43+.

Regarding claim 13, Tomita et al. teaches a sheet material-treating assembly, 7, for treating the sheet material by utilizing the information obtained by the sheet information-detecting apparatus.

Regarding claim 14, Tomita et al. teaches a driving assembly for the sheet material feeding means, see figure 9.

Regarding claim 15, Tomita et al. teaches a process for acquiring information on a sheet material, comprising the steps of:

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- correcting the position of a fed sheet material to bring the orientation direction of the constituting material of the sheet material to be in a prescribed direction relative to the feed direction of the sheet material;
- applying an external force to the sheet material in the corrected position; and
- acquiring information on the stress caused by the applied external force in the sheet material, see column 5, lines 43+ and column 8, lines 58+.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. in view of Chase.

Regarding claim 6, Tomita et al. does not teach that the external force is a mechanical force, but Chase does. Chase teaches an information-detecting apparatus that comprises an external mechanical force, see figure 3 and column 12, lines 14+.

Regarding claim 7, Chase teaches that the mechanical force is plural times of impacts at different collision velocities, see figure 3 and column 12, lines 14+.

Regarding claim 9, Chase teaches a restricting member is provided for restricting the region of displacement of the sheet material on application of the external force, see figure 3.

Both Tomita et al. and Chase teach an information-detecting apparatus, therefore it would have been obvious to one of ordinary skill in the art to substitute the information-detecting apparatus of Chase, that applies a mechanical external force, for the information-detecting apparatus of Tomita et al. to achieve the predictable result of determining the orientation of the sheet being fed.

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. in view of Agdur et al.

Regarding claim 8, Tomita et al. does not teach that the external force is vibrations having different frequency components, but Agdur et al. does, see column 2, lines 2+. Both Tomita et al. and Agdur teach an information-detecting apparatus, therefore it would have been obvious to one of ordinary skill in the art to substitute the information-detecting apparatus of Agdur, that applies a vibrations, for the information-detecting apparatus of Tomita et al. to achieve the predictable result of determining characteristics of the sheet being fed.

Regarding claim 12, Agdur et al. teaches that the signal-detecting means is comprised of a material having a piezoelectric property, see column 2, lines 2+. Both Tomita et al. and Agdur teach a signal-detecting apparatus, therefore it would have been obvious to one of ordinary skill in the art to substitute the information-detecting apparatus of Agdur, that has a piezoelectric property, for the information-detecting apparatus of Tomita et al. to achieve the predictable result of determining characteristics of the sheet being fed.

Response to Arguments

Applicant's arguments filed 16 November 2007 have been fully considered but they are not persuasive.

Applicant argues on page 7 that the mechanical force is applied to a sheet material to detect, this feature is not claimed. The independent claims 1 and 15 merely claim that the external mechanical force is applied to the sheet material in the corrected position. The claims do not claim that the mechanical force is applied to detect. Tomita et al. does teach this feature, the Tomita et al. reference teaches that after the position of the sheet is corrected the sheet is conveyed by rollers, this conveyance constitutes a mechanical external force being applied to the sheet.

The applicant further argues on page 7 that the Tomita et al. reference does not teach a means of correcting the oblique advance of the sheet material, the applicant is mistaken. Tomita et al. clearly teaches in the reference column 8, line 58 through column 10, that the device 11 rotates that paper 90 degrees if the fiber orientation of the paper is sensed to be orthogonal to the paper transport direction. The referenced columns clearly teach the claimed correcting means. All of the features of the claimed invention are taught by the prior art, and therefore the claims remains rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAITLIN S. JOERGER whose telephone number is (571)272-6938. The examiner can normally be reached on Monday - Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kaitlin S Joerger
Primary Examiner
Art Unit 3653

23 January 2008

/Kaitlin S Joerger/
Primary Examiner, Art Unit 3653